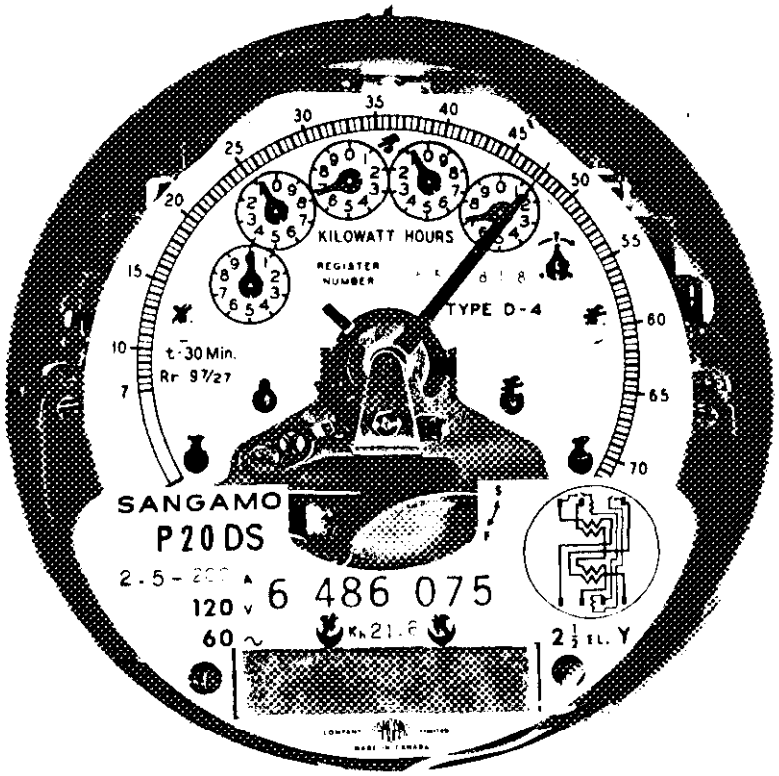
SANGAMO TYPE "D-4" MECHANICAL DEMAND INDICATING REGISTERS



Description: The type "D-4" mechanical demand indicating register is of the integrating block interval type, with the timing interval determined by a synchronous motor. A pair of cams driven through gearing from this motor and visible at the top of the register have two pawls riding on them. The pawls are of slightly different lengths so that one pawl slips off the steps of the cam before the other. The first pawl to slip off the step permits the driving pusher arm to fall to the zero position under the influence of a gravity-operated weight, and the second pawl when it falls in turn re-engages the pusher arm.

It should be noted that when the meter is not in its operating position, such as lying on a bench face upwards, these weights are inoperative so that the pusher arm is free to move and may come to rest in any position when the meter is revolved into its operating position.

Because the pusher arm is free to swing when the motor is not in its operating position, it is possible to manipulate the meter manually in such a way as to cause the pusher arm to strike the driven pointer, thus driving it upscale where it will remain until lowered by the reset knob. This is not a defect but part of the design.

NOTE: Because of this effect, the reading obtained from the demand scale following the removal of a meter from service is valueless, and cannot be used in computing a billing or otherwise. For the same reason the maximum demand pointer should be lowered, by means of the reset knob after the meter has been placed in its operating position.

The register ratio, (Rr) is stamped on one of the register backplates in the usual manner along with the pusher arm ratio (P.A.R.) which is 50 for a 30 minute time interval and 25 for a 15 minute interval. The register serial number is stamped on the face of the register. A small pointer at the right of the watthour circles indicates the progress of the demand interval. The cams which permit the resetting operation are normally set to operate when this small pointer is opposite a small vertical mark, but a spring clutch on the cam shaft allows them to be put out of step so that the resetting operation will take place at other positions of the pointer.

The zero adjustment is operated by means of an eccentric screw just to the left of the demand pointer hub.

This demand register is mounted on the meter grid by two locating pins at the top and by a lever at the bottom clamping under the head of a locating screw.

/3

Description (cont'd) The P20- meter elements approved for use with this demand register are identical to those receiving approval under circular S-EA.574 except that the watthour register is now a part of the demand register, and as the nameplate with the serial number is also attached to the demand element, the serial number will be marked additionally on the grid of the meter.

The voltage of the timing motor in all cases is the same as that of the meter.

W.J.S. Fraser,
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